

**Notice of Allowability**

Application No.

10/507,227

Examiner

Chukwuma O. Nwaonicha

Applicant(s)

CODIGNOLA, FRANCO

Art Unit

1621

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 16 July 2007.
2. ☒ The allowed claim(s) is/are 1-3, 6, 8-16 and 20 (now renumbered 1-14, respectively).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **DETAILED ACTION**

#### **Current Status**

1. Claims 1-3, 6, 8-16 and 20 are pending in the application.
2. This action is responsive to Applicants' amendment of 16 July and 11 September 2007.
3. Receipt and entry of Applicants' amendment is acknowledged.
4. The 112 and 103 rejections have been withdrawn following applicants' amendment.

#### **Allowed Claims**

Claims 1-3, 6, 8-16 and 20 are allowable over the prior art of record.

#### **Reason For Allowance**

The following is an examiner's statement of reasons for allowance: A search of the prior art failed to uncover any reference that anticipates or renders obvious a process for the synthesis of cumene hydroperoxide, comprising the step of oxidizing cumene to cumene hydroperoxide in a liquid phase in the presence of an oxidizing agent and of a **basic resin**, said basic resin being a **pyridinic resin**, said basic resin not releasing inorganic cations to the reaction environment as claimed by applicants.

The closest prior art is Boncheva et al., {Oxidation of Cumene in the Presence of Anion Exchange Resins, Neft i Khimiya, 1977, 11, 15-18}. Boncheva et al. teach a process for the preparation of Cumene hydroperoxide by the oxidation of cumene with air in the presence of a **weakly-alkaline anionic resin** and the decomposition of the Cumene hydroperoxide to phenol and acetone at a temperature of about 115°, while

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minimizing the production of carbinol. The goal of the study was oxidation of cumene in laboratory conditions in the presence of small amounts of weakly alkaline anion exchange resin.

Boncheva et al. process for the synthesis of cumene hydroperoxide from cumene differs from the instantly claimed process for the synthesis of cumene hydroperoxide in that Boncheva et al. teach a process that employs **weakly-alkaline anionic resin** while applicant claims a process that employs **basic pyridinic resin**. Another difference between applicants claimed process for the synthesis of cumene hydroperoxide from cumene and that of Boncheva et al. is that applicant's claim an industrial or commercial production of cumene hydroperoxide while Boncheva et al. teach a laboratory study of the oxidation of cumene to cumene hydroperoxide. The two processes are different, and are not readily apparent and would not have been suggested to one of ordinary skill.

**All claims (1-3, 6, 8-16 and 20) are allowed.**

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chukwuma O. Nwaonicha whose telephone number is 571-272-2908. The examiner can normally be reached on Monday thru Friday, 8:30am to 5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne (Bonnie) Eyler can be reached on 571-272-0871. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chukwuma O. Nwaonicha, Ph.D.  
Patent Examiner  
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Yvonne (Bonnie) Eyler  
Supervisory Patent Examiner,  
Technology Center 1600